

## ABSTRACT OF THE DISCLOSURE

An automatic gain control device without being influenced by leakage current of a capacitor. The automatic gain control device includes a first control loop, a second control loop, and a multiplexer. The first control loop receives an input voltage and generates a first AGC voltage accordingly. The second control loop receives the first AGC voltage, registers the first AGC voltage as digital data, and outputs a second AGC voltage by a DAC. The multiplexer chooses the first AGC voltage or the second AGC voltage as an AGC voltage according to a hold signal. Because the second control loop registers the first AGC voltage in a digital format and output the second AGC voltage from the DAC, the AGC voltage can be held constant for a long time without being influenced by leakage current.